

TWO-SPEED ROTATIONAL CONTROL APPARATUS
WITH EDDY CURRENT DRIVE
ABSTRACT OF THE DISCLOSURE

A rotational control apparatus includes a first rotatable assembly and a second rotatable assembly. The first assembly is rotatably mounted to a first support mount. The second assembly is rotatably mounted to the first assembly and is axially moveable relative to the first assembly. The first and second assemblies have respective coaxial surfaces adjacent to and spaced from one another and further have respective axial surfaces that frictionally engage one another when the second assembly is in a first axial position and disengage when the second assembly is in a second axial position. The second assembly is capable of rotation independent of the first assembly when the second assembly is in the second axial position. The rotational control apparatus includes an eddy current drive comprised of a first eddy current coupling assembly associated with the coaxial surface of the first assembly and a second eddy current coupling assembly associated with the coaxial surface of the second assembly, the second eddy current coupling assembly adjacent the first eddy current coupling assembly with an air gap therebetween.